

INTENSIVE PHASE I ARCHEOLOGICAL
INVESTIGATION FOR LANDS
NORTH OF MANLY ASSOCIATED WITH THE
IOWA NORTHERN RAILWAY COMPANY,
LINCOLN TOWNSHIP, WORTH COUNTY, IOWA

Section 9, T98N, R20W

BCA #1999

Prepared for
Iowa Northern Railway Company
1330 Sheffield Avenue
Waterloo, Iowa 50702

Prepared by
Branden K. Scott
(Principal Investigator)

Bear Creek Archeology, Inc.
P.O. Box 347
Cresco, Iowa 52136
David G. Stanley, Director

June 2013

INTENSIVE PHASE I ARCHEOLOGICAL
INVESTIGATION FOR LANDS
NORTH OF MANLY ASSOCIATED WITH THE
IOWA NORTHERN RAILWAY COMPANY,
LINCOLN TOWNSHIP, WORTH COUNTY, IOWA

Section 9, T98N, R20W

BCA #1999

Prepared for
Iowa Northern Railway Company
1330 Sheffield Avenue
Waterloo, Iowa 50702

Prepared by
Branden K. Scott
(Principal Investigator)

Bear Creek Archeology, Inc.
P.O. Box 347
Cresco, Iowa 52136
David G. Stanley, Director

June 2013

MANAGEMENT SUMMARY

This report presents the results of an intensive Phase I archeological investigation conducted for the Iowa Northern Railroad Company of Waterloo, Iowa, by Bear Creek Archeology, Inc. of Cresco, Iowa. This investigation was requested to provide information about archeological resources that might exist at a possible development area north of Manly in Section 9, T98N, R20W, Lincoln Township, Worth County, Iowa. The project area encompasses approximately 68.7 ha (169.7 ac) within the Iowan Surface physiographic region. Bear Creek Archeology, Inc. personnel conducted the field investigation on June 17 and 18, 2013.

Prefield research indicated the project area had limited potential for archeological sites. The soil survey and topographic map show the project area on a flat upland plain removed from significant waterways. These areas are comprised of poorly drained uplands and glacial depressions. No previously recorded archeological sites occurred in or near the project area based on a site records search. A review of historic plat maps and aerial photographs indicated that no documented historic structures occurred within the project area. Modern aerial photographs did indicate that significant disturbances are present in the southern portion of the investigated area.

The field investigation consisted of obtaining profiles using a soil probe ($n = 4$) and a pedestrian survey. The geomorphological analysis indicated the project area occurred on a broad flat upland landform, small glacial depressions, and a disturbed area. No buried soils were encountered. The project area was found in an agricultural field and a disturbed area. Ground surface visibility in project area was good and a pedestrian survey was conducted at 15 m (49.2 ft) intervals. No archeological resources were encountered. Because no archeological sites were encountered, Bear Creek Archeology, Inc. recommends no further work for the project area.

INTRODUCTION

This report presents the results of an intensive Phase I archeological investigation conducted for the Iowa Northern Railroad Company, Waterloo, Iowa, by Bear Creek Archeology, Inc. (BCA), Cresco, Iowa. This investigation was requested to provide information concerning archeological resources that might exist at a possible development area north of Manly in the E½, Section 9, T98N, R20W, Lincoln Township, Worth County, Iowa. The project area encompasses approximately 68.7 ha (169.7 ac) of upland and wetland landforms in the Iowan Surface physiographic region.

This archeological survey was conducted in accordance with the National Historic Preservation Act (Advisory Council of Historic Preservation 1984, 1999) and the Secretary of the Interior's standards for the identification of historic properties (National Park Service 1983). The fieldwork and report presented herein were designed and conducted to meet or exceed the guidelines for archeological investigations in Iowa (Association of Iowa Archaeologists [AIA] 1999). This report details the information gathering process concerning archeological sites that might exist in or near the project area. It provides descriptions of archeological resources when encountered, their natural contexts, and recommendations concerning the impact of the proposed activities on archeological properties. Branden K. Scott and Shay C. Gooder conducted the field investigations on June 17 and 18, 2013. The field investigation consisted of landform evaluations and a pedestrian survey.

Prefield research indicated the project area had limited potential for archeological sites. The soil survey and topographic map depict the project area as residing on a flat upland plain removed from significant waterways. The area was documented as being comprised of wet uplands and depressions. No previously recorded archeological sites occur in or near the project area. A review of historic plat maps and aerial photographs indicate that no documented historic structures occur within the project area. Significant disturbances have occurred toward the southern portion of the investigated area.

The field investigation consisted of obtaining soil profiles ($n = 4$) and a pedestrian survey. The geomorphological analysis indicated the project area occurs on a broad flat upland landform, small glacial depressions, and a disturbed area. Due to the flatness of the upland landform, the area is poorly drained. No buried soils were encountered. Visibility in the project area was good. No archeological resources were encountered.

PROJECT LOCATION

The project area is located in the Iowan Surface physiographic region (Prior 1991; Figure 1). The project area is situated in the E½ of Section 9, T98N, R20W, Lincoln Township, Worth County, Iowa (Figure 2). The project area is bounded to south by 380th Street, to the west by U.S. Highway 65/Orchid Avenue, to the north by 390th Street, and to the east

by the Northwestern and Pacific Railway. The project area resides on upland and drained wetland landforms.

The project area is approximately 68.7 ha (169.7 ac) and occupies an agricultural field and a disturbed area. At present, it is unclear what is to be constructed at this location or how this area will be used. Therefore, all archeological resources, no matter the depth, need to be identified and evaluated to ensure that they will not be adversely affected in the future (should archeological sites occur).

INVESTIGATION PREMISES

The survey strategy used for this investigation is based on the examination of the project area and the landforms that exist within it. Archeological sites are integrated into the environment by natural surficial and formation processes, and may be viewed not only as cultural remains but also as geologic deposits. Geological processes condition the geographic and pedologic character of a region and being aware of a region's geologic development is a necessary component to any evaluation of the archeological record. Landform and soil attributes have a strong influence on the presence, absence, and distribution of the plant and animal populations exploited by human groups. Geological processes affect not only the patterns of human settlement and land use, but they are also largely responsible for the preservation, destruction, and manipulation of the archeological record. The archeological record should therefore be viewed as a product of both cultural and geological processes (Bettis and Green 1991).

This outlook on site locations enables the researcher to predict site occurrence and patterned distributions within a given region in relation to local landforms (Bettis and Benn 1984; Bettis and Thompson 1981). This approach also assists in the recognition of post-settlement alluvium, made-land, plowzones, and other disturbances and site formation processes that may have modified the landscape and the archeological record.

As a tool of cultural resource management, this type of landform modeling is critical to the development and implementation of survey strategies. Geologically sensitive survey strategies allow the investigator to focus on areas where the probabilities of site occurrence are highest. This reduces or eliminates the costs of surveying areas where sites should not sensibly occur in situ (e.g., made-land, heavily disturbed areas, landforms consisting entirely of recent alluvium). Informed survey strategies, such as the one outlined above, allow for the determination of the vertical and horizontal distribution of subsurface tests necessary to detect buried archeological deposits. The nature of the proposed impacts can also be assessed in terms of the landforms present.

ENVIRONMENTAL CONTEXT

Physiographic Region

The project area is located in north-central Iowa in the physiographic region known as the Iowan Surface (Prior 1991; Figure 1). The Iowan Surface is slightly inclined to gently rolling with long slopes, low topographic relief, and extended views to the horizon. Iowan Surface hillslopes are gradually multi-leveled or stepped surfaces that progress outwardly to drainage divides (Prior 1991:68). A well-defined valley edge is generally difficult to distinguish and the drainage networks are well established and have low topographic relief (Prior 1991:69). According to Prior (1991), this physiographic region experienced its last glaciation during the pre-Illinoian period and has since been subjected to episodes of weathering, development of soils, loess deposition, and erosion.

The erosional surface complex advanced gradually from stream valleys to the adjacent interstream divides, leaving residual concentrations of coarse pebbles, clays, silts, and sands on each developing surface level. Fluvial actions, slope-wash, and wind deflation eroded these residual deposits during the same period that loess was deposited on the landscape. Thick loess accumulations occur on undisturbed topographic highs consisting of elongated ridges and isolated oblong hills known as “pahas” and interstream divides (Prior 1991).

Upland Landform Model

The upland landform model used in this report is based on Ruhe's (1969; Figure 3) analysis of hillslope evolution detailing the erosional and depositional sequences of upland landform components. The upland hillslope is divided into five components (listed in descending order): summit, shoulder, sideslope, footslope, and toeslope.

Summits comprise the upper portion of the landform and tend to be stable, but they are subjected to minor deposition and erosion by eolian processes. Shoulders are formed by the gradual back cutting of hillslopes and are generally convex in cross-section with a low degree of slope. Sideslopes are erosional features formed by the back cutting of valley walls. Footslopes, the lower remnants of hillslopes, are eroded and often covered by colluvial deposits derived from the shoulder and sideslope. Toeslopes can be found at the base of the upland landform and consist almost entirely of colluvial deposits.

Due to their low degree of erosion and relative flatness, summits and shoulders have high potential for containing sites. These landforms have been shown capable of containing intact, shallowly buried archeological materials (Van Nest 1993). Footslope and toeslope areas also are considered to have good site potential because these landforms are depositional in nature and generally have a low degree of slope (Van Nest 1993). Sideslopes, because of their steep inclines and high degree of erosion, rarely contain intact prehistoric archeological materials). Historic archeological sites can be found on nearly any upland landform component.

When using this model, it is important to account for agriculturally induced wind and water erosion. All cultivated upland components have been subjected to erosional pressures. Therefore, summit, shoulder, footslope, and toeslope positions that have been historically cultivated typically possess lower potential for intact sites.

Project Area Soils and Landscape Analysis

The information presented here was obtained from the Soil Survey of Worth County, Iowa (Buckner and Highland 1976) and the Natural Resources Conservation Service (NRCS; 2006). The soils summarized below in Table 1 are the soil types likely to be encountered in the project area (Figure 4).

Table 1. Soil information (Buckner and Highland 1976; NRCS 2006)

Designation	Soil Series	Member/ Landform	Description
184	Klinger silty clay loam, 1–3% slopes	Upland	This is a nearly level to gently sloping, somewhat poorly drained soil found on broad ridge crests and long sideslopes. This soil formed in loess over glacial till. The native vegetation was prairie grasses. Permeability is moderate to moderately slow and the available water capacity is high. The typical profile is Ap-A-AB-Bg1-2Bg2-2Bg3-2BC1-2BC2. The archeological potential is moderately low due to poor drainage.
382	Maxfield silty clay loam, 0–2% slopes	Upland	This is a nearly level, poorly drained soil found on long, slightly concave to slightly convex slopes in the uplands. This soil formed in loess over glacial till. The native vegetation was water-tolerant prairie grasses. Permeability is moderate and the available water capacity is high. The typical profile is Ap-A-Bg-2Bw1-2Bw2-2BC1-2BC2. The archeological potential is moderately low due to poor drainage.
399	Readlyn loam 1–3% slope	Upland	This is a gently sloping, somewhat poorly drained soil found on broad ridge crests and long sideslopes. This soil formed in loamy material and the underlying glacial till under prairie grasses. Permeability is moderate to moderately slow and the available water capacity is high. The typical profile is A1-A2-BA-Bw-2Bg1-2Bg2-2BCg-2BC. The archeological potential is moderately low due to wetness.
507	Canisteo silty clay loam, 0–2% slopes	Wetland/ depression	This is a nearly level, poorly drained soil found in waterways and on the borders of some glacial depressions. This soil formed in glacial sediment under water-tolerant grasses. Permeability is moderate and the available water capacity is high. The typical profile is Ap-A-Bkg1-Bkg2-Cg1-Cg2. The archeological potential is low due to landscape position and wetness.

While the soil survey depicts most of the project area on upland landforms, these landforms appear to be poorly drained. The frequent occurrence of Bg horizons suggests that this area was unsuitable for human habitation throughout much of the year. The Canisteo soil represents a prehistoric wetland/marsh. These areas often do not contain archeological sites because they tended to be underwater. While archeological sites can occur along the margins of such landforms, in this instance, archeological sites are not anticipated because the surrounding uplands are also perennially wet.

The topographic map shows the project area on a nearly level glacial plain (Figure 2). Elevation ranges from 362.7 m (1,190 ft) to 365.8 m (1,200 ft) above the National Geodetic Vertical Datum. There are no waterways within the project area. Beaver Creek is located approximately 240 m (787.4 ft) to the west. At this location, Beaver Creek is a very small stream. Beaver Creek flows southeast and meets with the Shell Rock River south of Plymouth. A LiDAR image shows the project area on a nearly flat upland landform with some disturbances to the south (Figure 5). The stream valleys to the west have not incised deeply. Based on the topographic map and the LiDAR image, the project area is unlikely to yield archeological materials because this location is too far removed from major waterways of the Iowan Surface.

METHODS AND RESULTS

To obtain the information needed to complete the survey, archival research and field survey were conducted under the protocols for archeological investigations in Iowa (AIA 1999).

Archival Research

Prior to fieldwork, information regarding previously documented archeological sites as well as former surveys within or near the project area was obtained from the on-line resource provided by the Office of the State Archaeologist. This archival search indicated that no previously recorded archeological sites or previous archeological surveys are located within a 1.6 km (1 mi) radius of the project area.

A General Land Office (GLO) map (1854; Figure 6) was used to document the early history of the project area. There are no historical resources documented on the GLO. Two historic plat maps were used to identify documented historic properties that might occur in the project area (Anderson Publishing Company 1913; Andreas 1875; Figures 7 and 8). No historical structures are documented on either map. Both maps depict a set of railroad tracks on the east side of the project area. No streams are ever depicted in the project area.

Caution needs applied when using plat maps for information regarding structure/farmstead and channel locations. These features are often misplaced or absent on the maps and field verification is necessary to substantiate these historical sources.

Aerial photographs from 1939, 1953, and 1965 were used to determine if structures or disturbances occurred within the project area (Figures 9–11). No historic structures or disturbances are documented on these aerial photographs. A recent aerial photograph depicts significant disturbances in the southern part of the project area (Figure 12).

Field Investigation

The survey strategy utilized for this investigation was determined by the results of the geomorphic study, the conditions observed in the field, and the potential of a given landform to contain archeological resources. The field investigation included the hand coring of soils and a pedestrian survey. To determine the archeological potential of the landforms occurring in the project area, a ¾" soil probe was used ($n = 4$; Figure 12). The results of these profiles are presented below.

DESIGNATION: 1999-1

LANDSCAPE POSITION: disturbed upland

SLOPE: 0–2%

METHOD: soil probe

VEGETATION: sparse grass, 60–70% ground surface visibility (GSV)

DESCRIBED BY: B. Scott

DATE: 6/18/13

REMARKS: This profile was taken in an area obviously reworked by modern earthmoving. Intact archeological resources are not anticipated.

Depth (cm)	Soil Horizon	Description
0–37	Disturbed	Mostly olive brown (2.5Y 4/3) with some very dark grayish brown (10YR 3/2) silty clay loam; massive structure; plastic. End.

DESIGNATION: 1999-2

LANDSCAPE POSITION: upland plain

SLOPE: 0–2%

METHOD: soil probe

VEGETATION: agricultural field, 80–90% GSV

DESCRIBED BY: B. Scott

DATE: 6/18/13

REMARKS: This profile appears to have been placed adjacent to a buried field tile.

Depth (cm)	Soil Horizon	Description
0–12	Ap	Black (10YR 2/1) sandy loam; weak, fine subangular blocky structure friable; clear boundary.
12–35	Backfill/ disturbed	Black (10YR 2/1) sandy loam; moderate, medium subangular blocky structure; firm; abrupt boundary.
35–37	Disturbed	Dark grayish brown (10YR 4/2) clay loam; massive structure; plastic; abrupt boundary.
37–68+	Cg	Yellowish brown (10YR 5/4) sandy clay loam with strong brown (7.5YR 4/6) iron mottles; massive structure; wet; water table at 60 cm. End.

DESIGNATION: 1999-3

LANDSCAPE POSITION: upland plain

SLOPE: 0–2%

METHOD: soil probe

VEGETATION: agricultural field, 80–90% (GSV)

DESCRIBED BY: B. Scott

DATE: 6/18/13

REMARKS: An A horizon remains at this location. The A horizon is underlain by an excessively wet B horizon. This wetness is likely due to the flatness of the landform.

Depth (cm)	Soil Horizon	Description
0–12	Ap	Black (10YR 2/1) silt loam; weak, fine subangular blocky structure friable; clear boundary.
12–30	A	Black (10YR 2/1) silt loam; moderate, medium platy structure; firm; clear boundary.
30–40	Bg	Yellowish brown (10YR 5/4) and black (10YR 2/1) silt loam; massive structure; plastic; some krotovina; clear boundary.
40–52+	Btg	Pale brown (10YR 6/3) sandy clay loam; massive structure; plastic; wet. End.

DESIGNATION: 1999-4

LANDSCAPE POSITION: upland plain

SLOPE: 0–2%

METHOD: soil probe

VEGETATION: agricultural field, 80–90% GSV

DESCRIBED BY: B. Scott

DATE: 6/18/13

REMARKS: This profile was taken on one of the highest points within the project area. A Btg horizon was still encountered, indicating that this area is poorly drained.

Depth (cm)	Soil Horizon	Description
0–11	Ap	Very dark gray (10YR 3/1) silt loam; weak, fine subangular blocky structure; friable; clear boundary.
11–25	A	Black (10YR 2/1) silt loam; weak, fine subangular blocky structure; friable; clear boundary.
25–35	AB	Very dark grayish brown (10YR 3/2) and dark brown (10YR 3/3) silt loam; moderate, fine subangular blocky structure; friable; clear boundary.
35–50+	Btg	Dark yellowish brown (10YR 4/4) sandy clay loam; massive structure; plastic; wet. End.

Using the soil profiles and a geomorphological assessment as a guide, the project area generally resides on a relatively flat, poorly drained glacial plain. In the northeastern and north central part of the project area, small wetlands occur. The southern portion of the project area occupies a disturbed upland landform. No buried soils were observed in this cultivated upland. Most of the project area occurred in an unplanted field (80–90% GSV; Figures 12–14). Some small, planted corn occurred in isolated areas but due to recent hail damage, the small plants did not change the surface visibility. In the disturbed area to the south, rock dominated the terrain (Figures 12 and 15). Sparse grass also occurred

in the disturbed area (60–70% GSV; Figures 12 and 16). A modern pond and new drainages/ditches were also cut into the disturbed area (Figure 12).

A pedestrian survey was conducted across the project area's agricultural field. Pedestrian survey transects were spaced at 15 m (49.2 ft) intervals. These transects were walked from north to south to north. A pedestrian survey was also conducted in the disturbed area to the south. The disturbed area consisted mostly of rock and a modern pond. Although surface visibility was more than adequate and the area was intensively surveyed, no archeological sites were encountered.

CONCLUSIONS AND RECOMMENDATIONS

This report presented the results of an intensive Phase I archeological investigation conducted for the Iowa Northern Railroad Company by BCA. This investigation was requested to provide information concerning archeological resources that might exist at a possible development area north of Manly in Section 9, T98N, R20W, Lincoln Township, Worth County, Iowa. The project area encompassed approximately 68.7 ha (169.7 ac). BCA personnel conducted the field investigations on June 17 and 18, 2013.

Prefield research suggested the project area had limited archeological site potential. The soil survey and topographic map showed the project area on a flat upland plain removed from significant waterways. The upland plain consisted of wet uplands and glacial depressions. No previously recorded archeological sites occurred in or near the project area. A review of historic plat maps and aerial photographs indicated that no documented historic structures occurred within the project area. Aerial photographs indicated significant disturbances in the southern part of the investigated area.

The field investigation consisted of obtaining profiles using a soil probe ($n = 4$) and a pedestrian survey. The geomorphological analysis indicated that the project area occurred on a broad, flat upland landform, small glacial depressions, and a disturbed area. No buried soils were encountered. Visibility in project area was good and a pedestrian survey was conducted at 15 m (49.2 ft) intervals. No archeological resources were encountered. Because no archeological sites were encountered, BCA recommends no further work for the project area.

No technique of modern archeological research is adequate to identify all archeological sites or cultural deposits within a given area. In the event that any cultural materials not recorded by this investigation are discovered during the course of the proposed development activities, the Bureau of Historic Preservation at the State Historical Society of Iowa is to be contacted immediately. The developer is responsible for the protection of cultural resources from disturbance until a professional examination can be made or authorization to proceed is granted by the State Historic Preservation Office or a designated representative.

REFERENCES CITED

Advisory Council on Historic Preservation

1984 *National Historic Preservation Act of 1966, as Amended* Public Law No. 89-665 and 91-243, 93-51, 94-422, 94-458, 96-515. Government Printing Office, Washington, DC.

1999 36 CFR Part 800, Protection of Historic Properties; Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites; Final Rule and Notice. *Federal Register* 64:27071-27087.

Anderson Publishing Company

1913 *Standard Historical Atlas of Worth County, Iowa*. Anderson Publishing Company, Chicago, Illinois.

Andreas, Alfred T.

1875 *Illustrated Historical Atlas of the State of Iowa*. Andreas Atlas Company, Chicago, Illinois.

Association of Iowa Archaeologists

1999 *Guidelines for Archaeological Investigations in Iowa*. Association of Iowa Archaeologists, Iowa City.

Bettis, E. Arthur, III, and David W. Benn

1984 An Archaeological and Geomorphological Survey in the Central Des Moines River Valley, Iowa. *Plains Anthropologist* 29:211-227.

Bettis, E. Arthur, III, and William Green

1991 Part I: Grandview to Kingston. In *Paleoenvironments and Archaeology of the Mississippi Valley in Southeastern Iowa*. Prepared for the Annual Meeting of the Association of Iowa Archaeologists, Burlington.

Bettis, E. Arthur, III, and Dean M. Thompson

1981 Holocene Landscape Evolution in Western Iowa: Concepts, Methods, and Implications for Archeology. In *Current Directions in Midwestern Archeology: Selected Papers from the Mankato Conference*, edited by Scott Anfinson, pp. 1-14. Occasional Publications in Minnesota Anthropology No. 9. Minnesota Archeological Society, St. Paul.

Buckner, Russell L., and John D. Highland

1976 *Soil Survey of Worth County, Iowa*. U.S. Department of Agriculture. Iowa Agriculture Experiment Station. U.S. Government Printing Office, Washington, D.C.

General Land Office (GLO)

1854 *Secretary of State Land Survey Records: Description of the Lands on the Interior Sectional Lines*. On file, State Historical Library, Iowa City, Iowa.

National Park Service

1983 Secretary of the Interior's Standards and Guidelines for Preservation Planning, Identification, Evaluation, and Registration. *Federal Register* 48:44716–44728.

Natural Resources Conservation Service (NRCS)

2006 Soil Survey of Worth County, Iowa. U.S. Department of Agriculture, Washington, DC. Downloaded from <http://soildatamart.nrcs.usda.gov/>, December 2006.

Prior, Jean C.

1991 *Landforms of Iowa*. University of Iowa Press, Iowa City.

Ruhe, Robert V.

1969 *Quaternary Landscapes in Iowa*. Iowa State University Press, Ames.

Van Nest, Julieann

1993 Geoarchaeology of Dissected Loess Uplands in Western Illinois. *Geoarchaeology* 8:281–311.

FIGURES

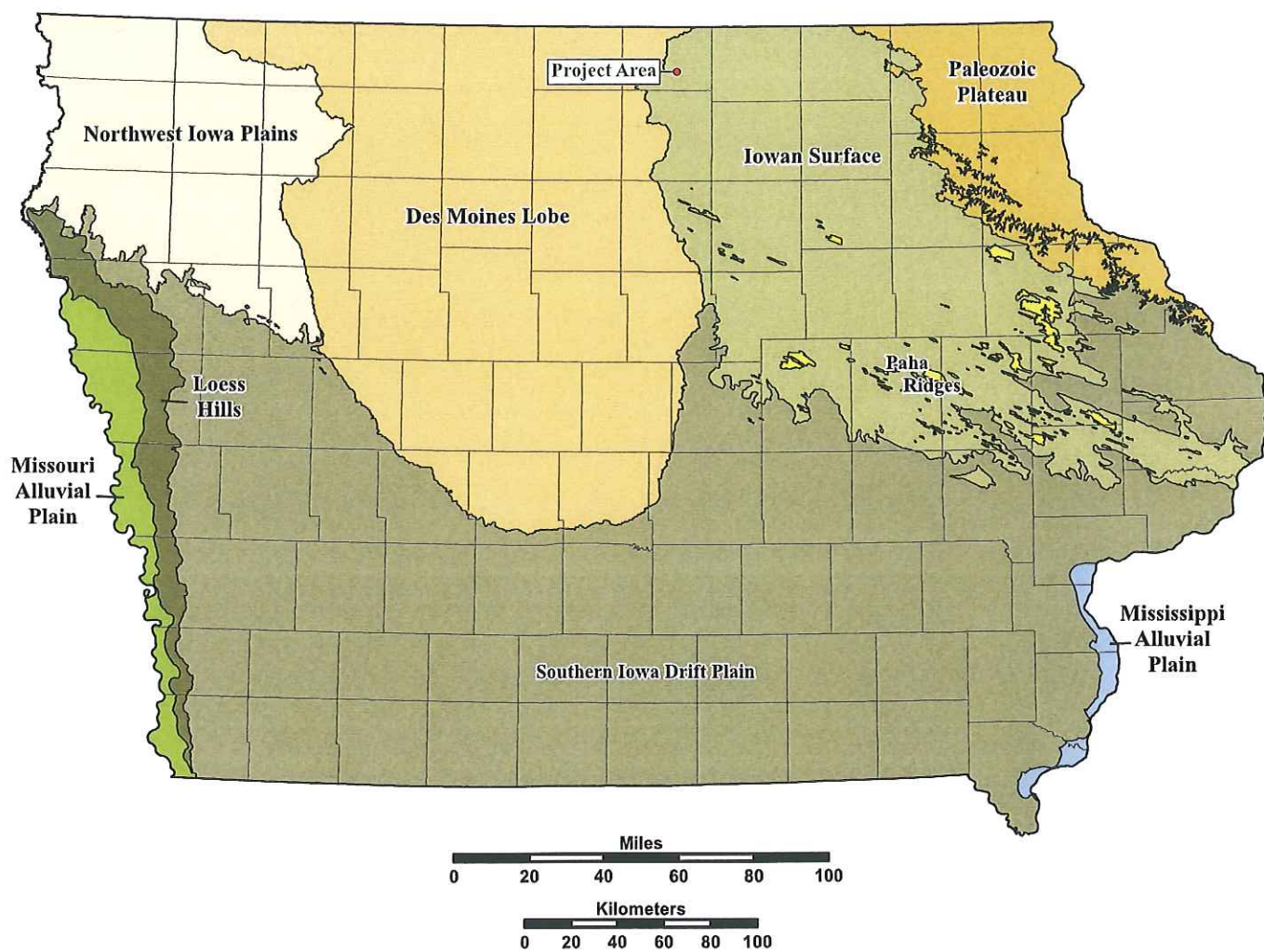


Figure 1. Physiographic location of the project area (adapted from Prior [1991:31]).

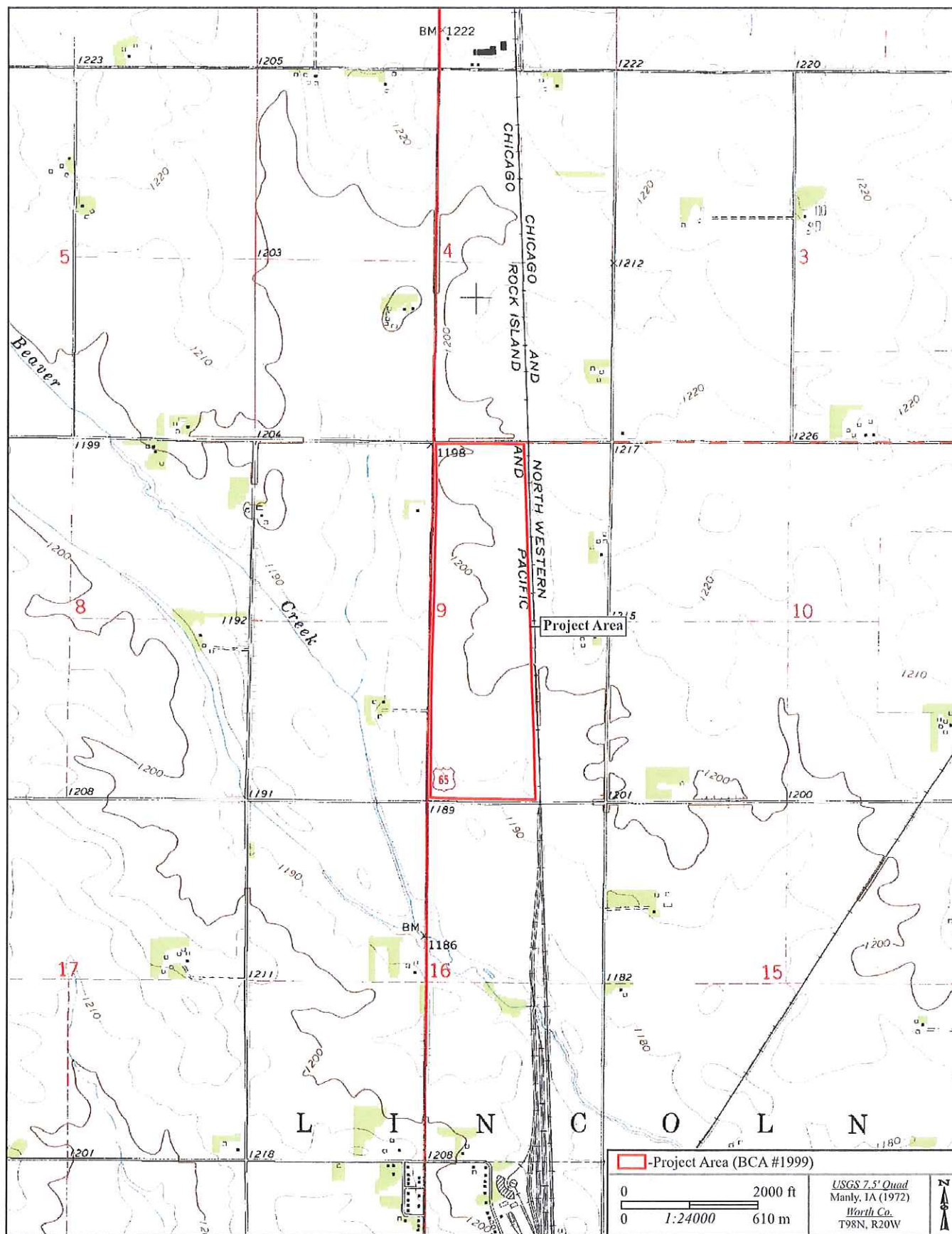


Figure 2. Topographic coverage of the project area.

POTENTIAL LANDFORM ASSEMBLAGES

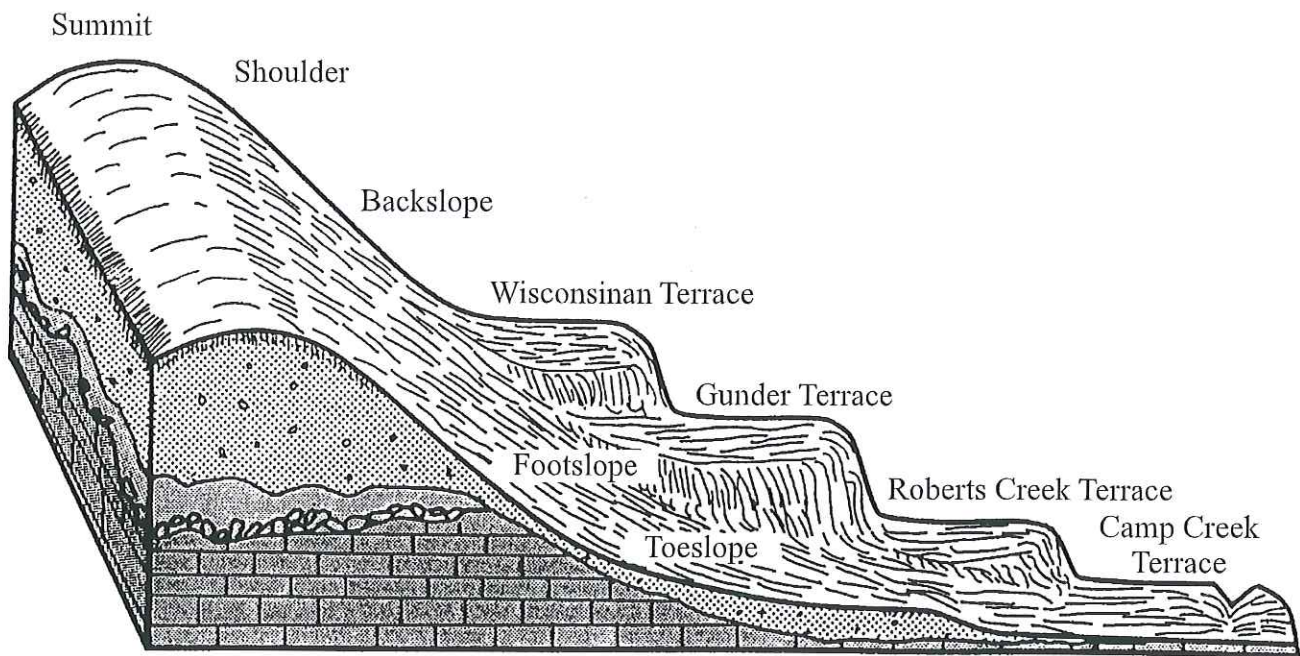


Figure 3. Diagram of potential landform components (adapted from Ruhe [1969]).



Figure 4. Soil map of the project area (NRCS 2006).

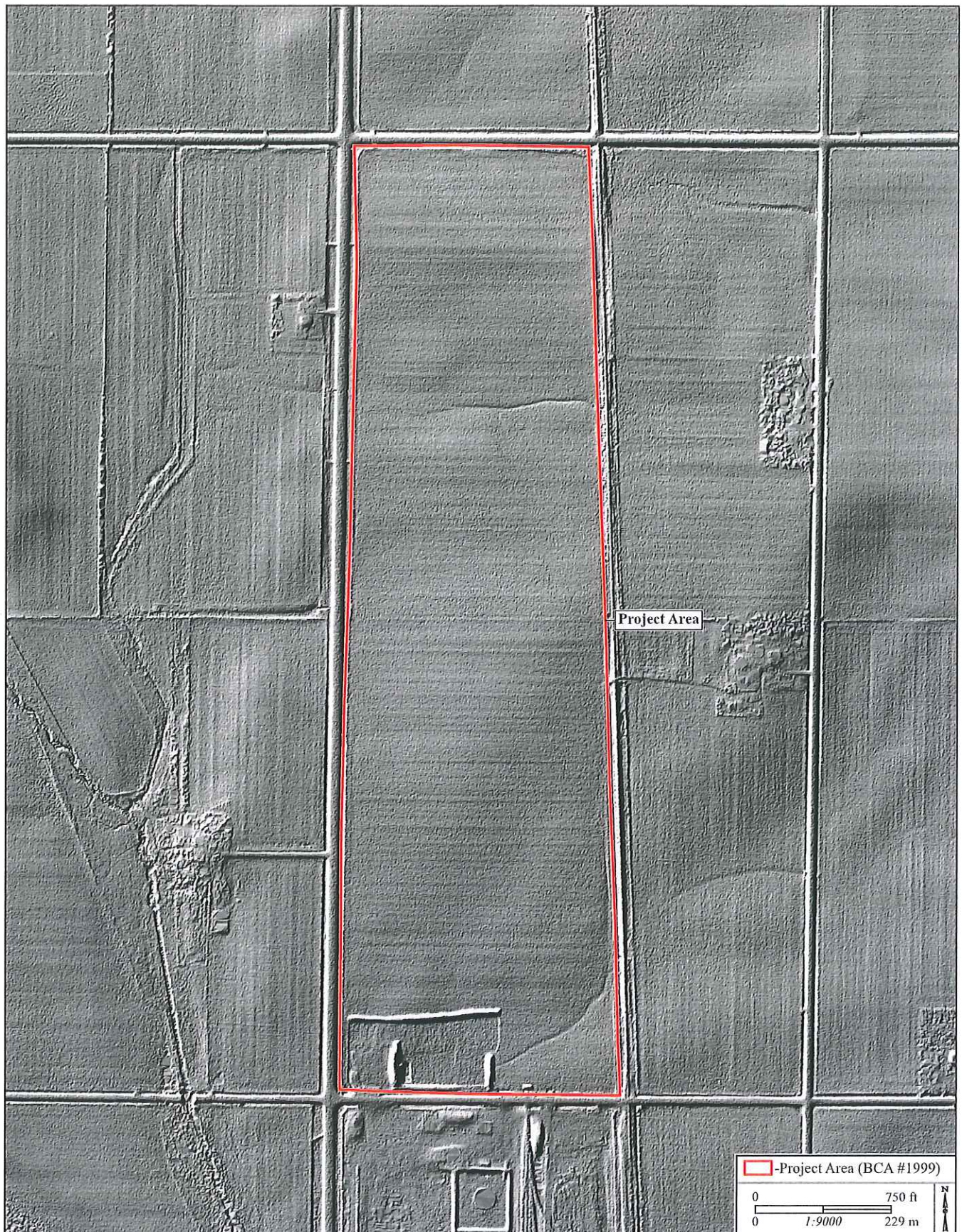


Figure 5. LiDAR image of the project area.

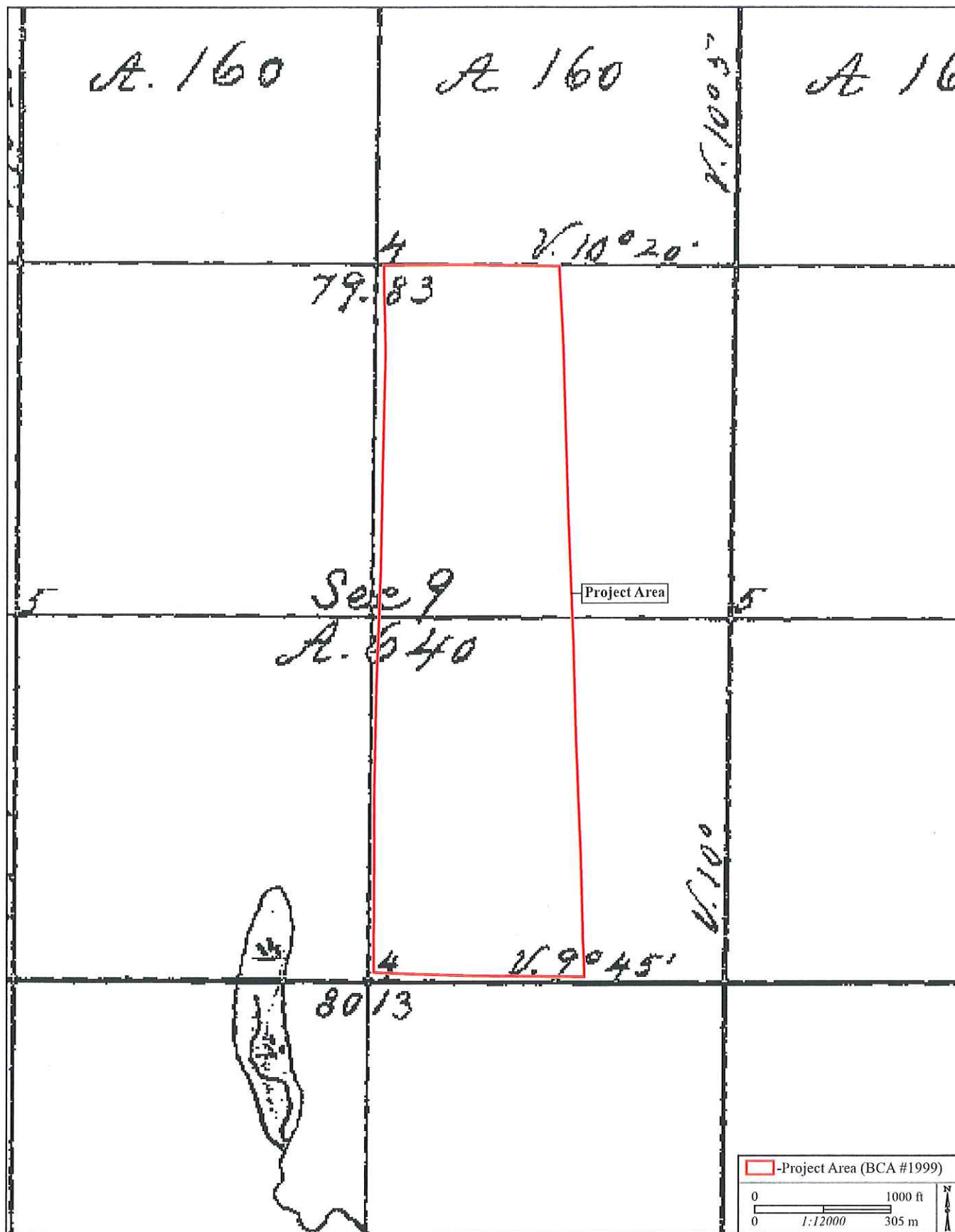


Figure 6. 1854 map of the project area (GLO).

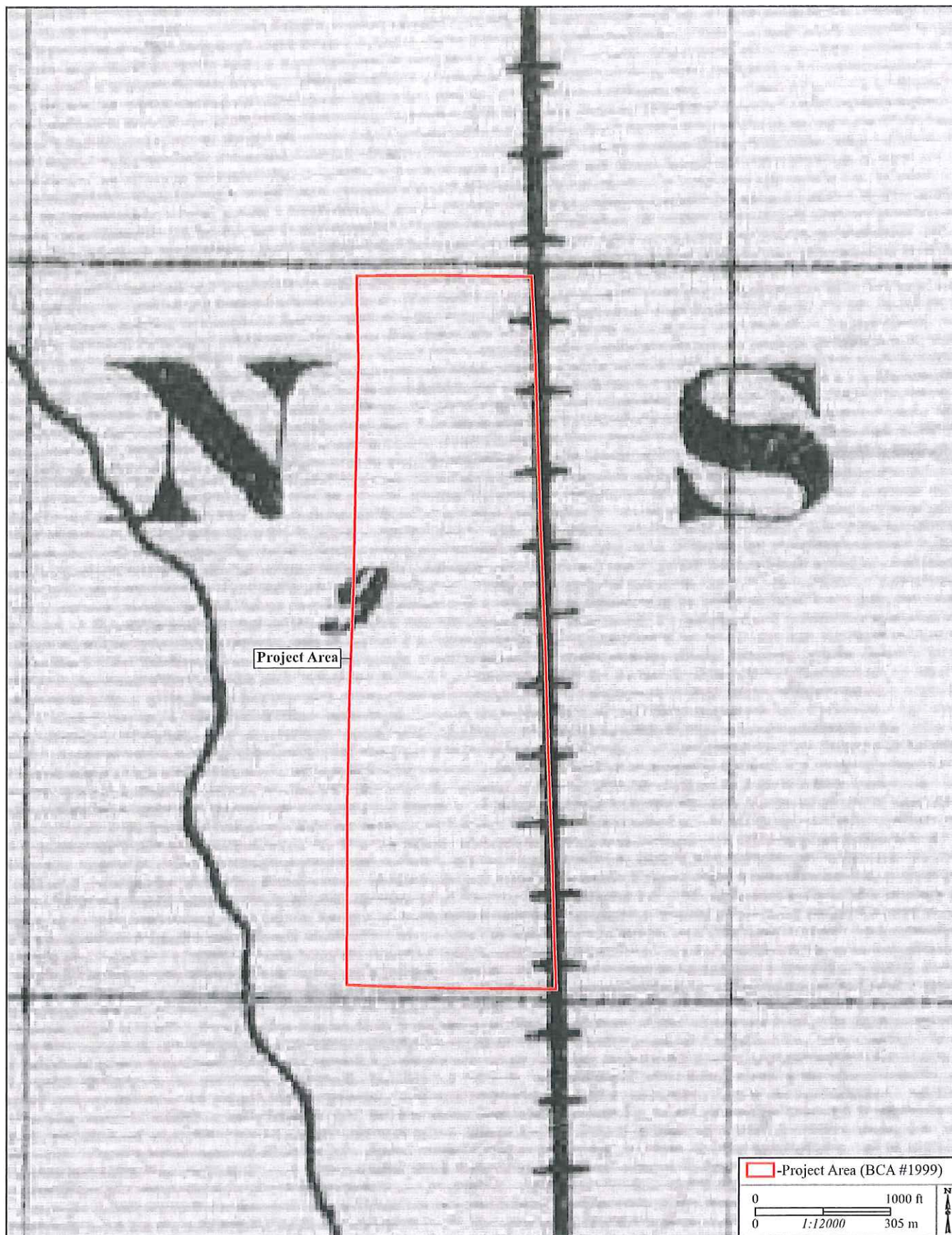


Figure 7. 1875 map of the project area (Andreas).

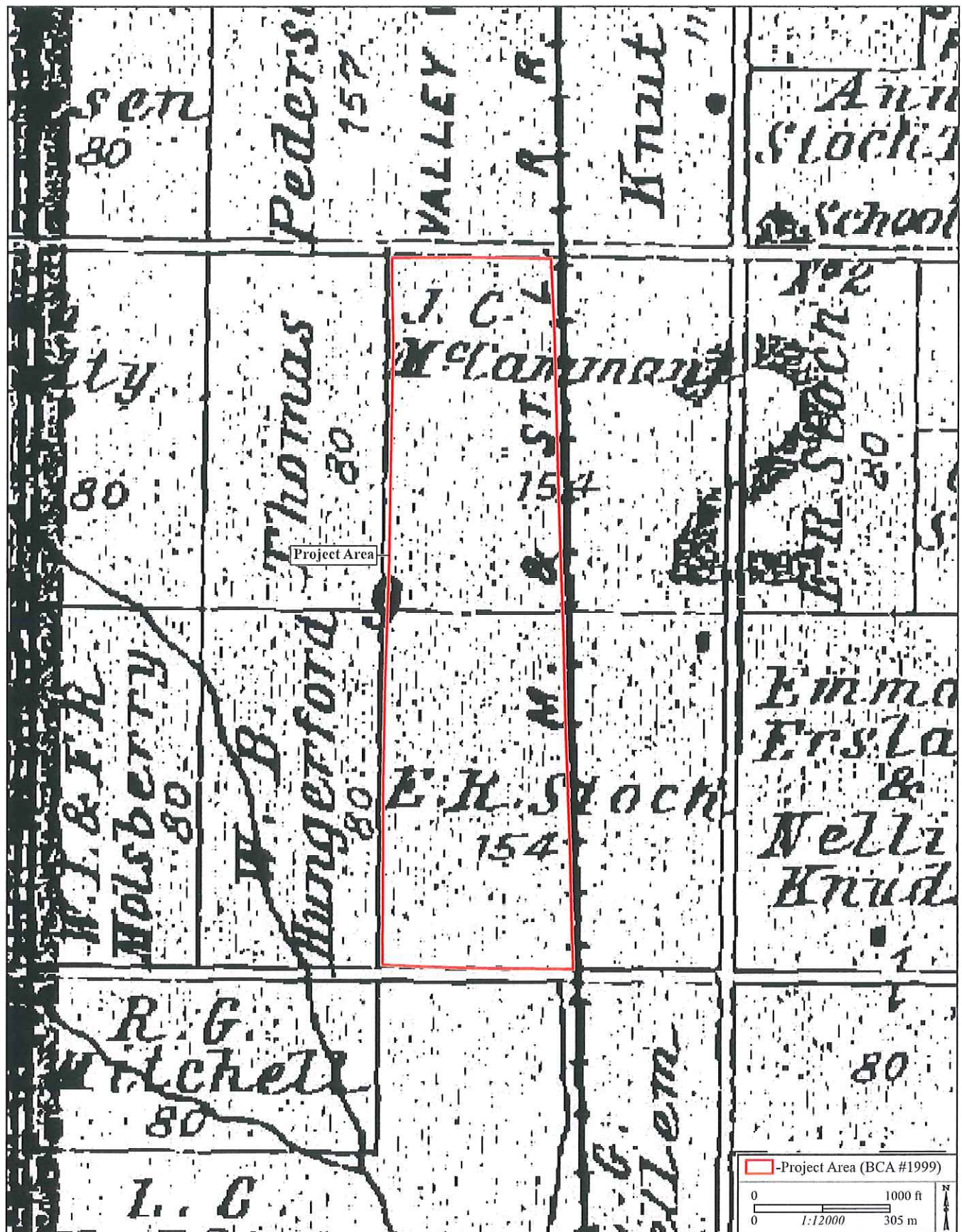


Figure 8. 1913 map of the project area (Anderson Publishing Company).

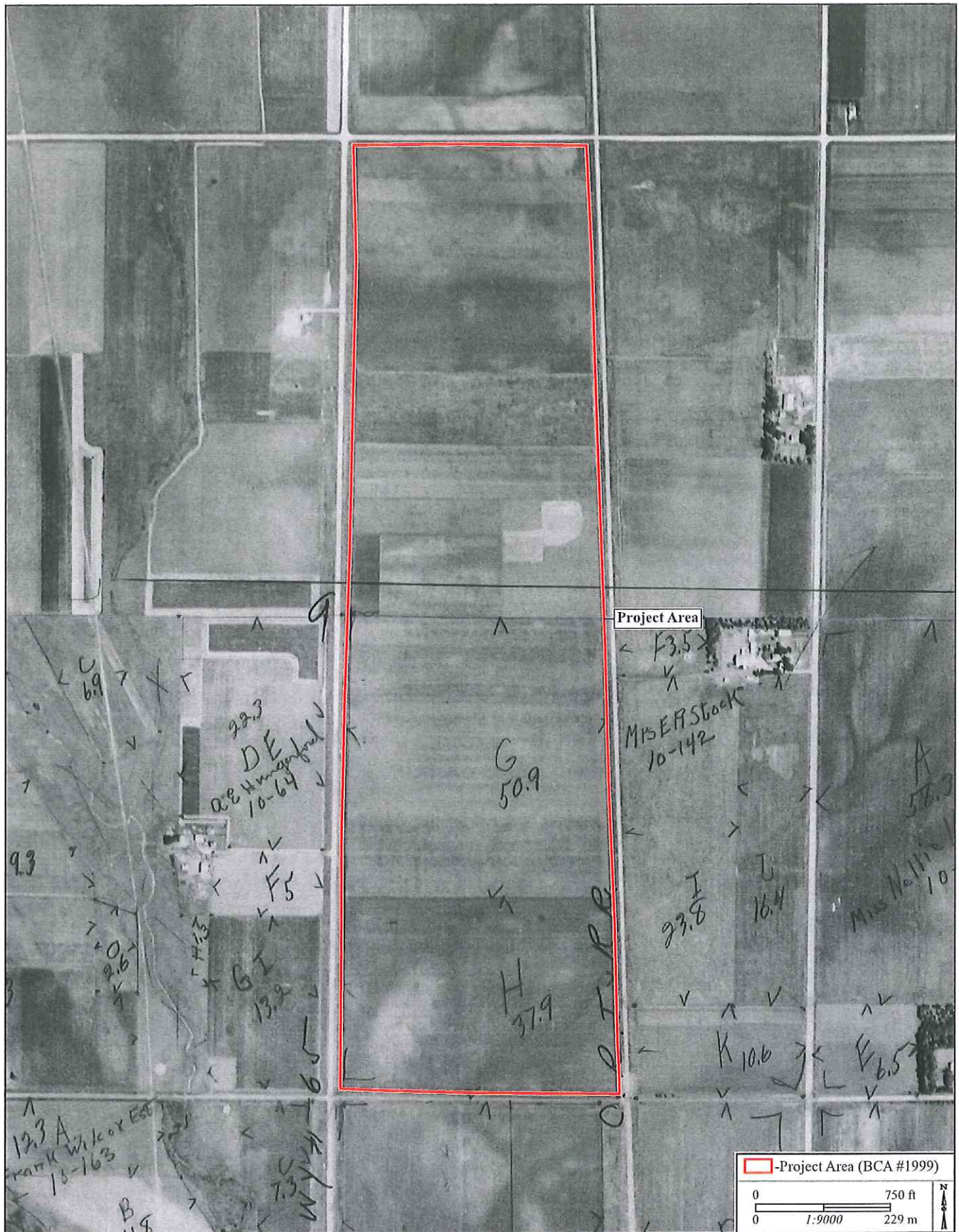


Figure 9. 1939 aerial photograph of the project area.

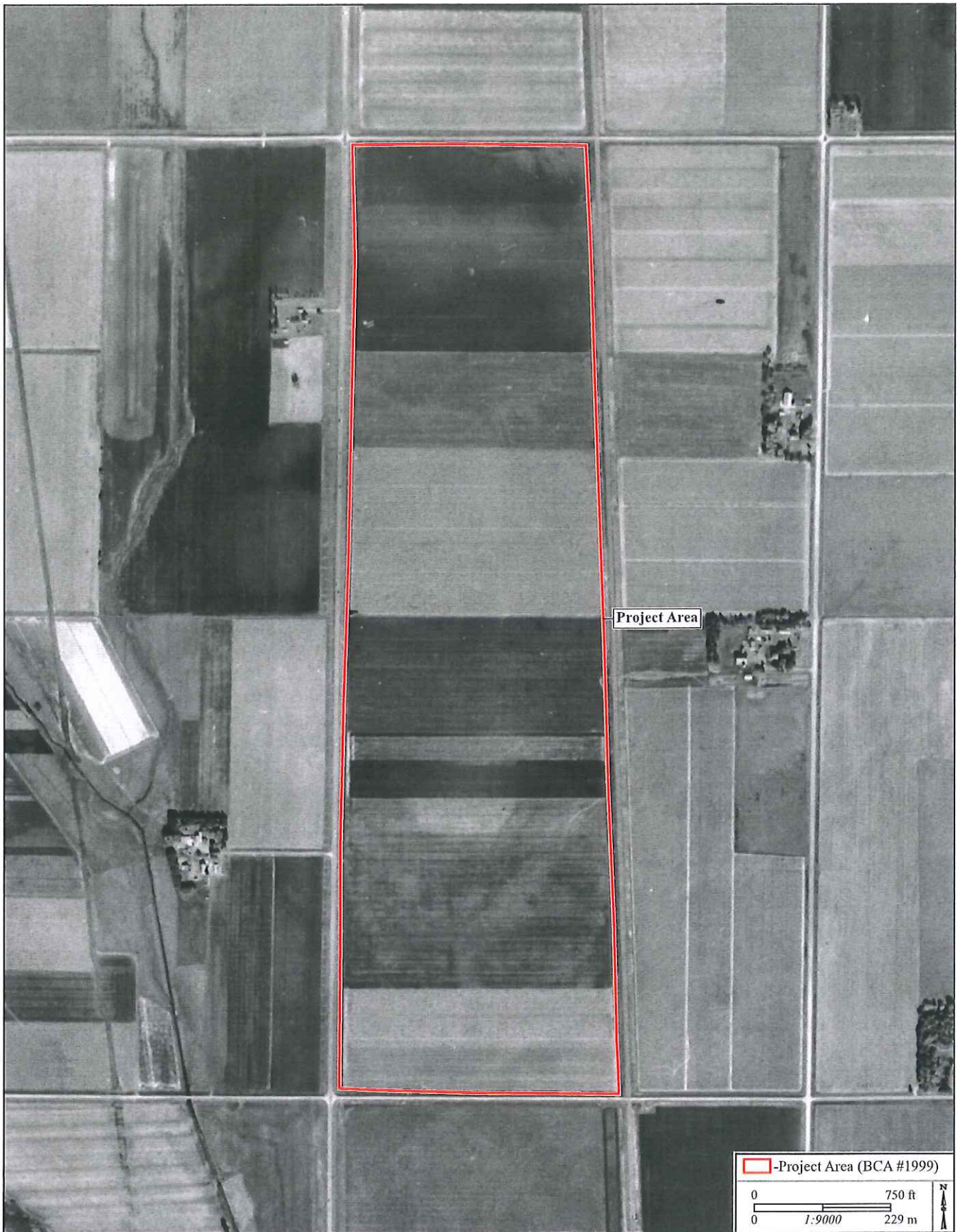


Figure 10. 1953 aerial photograph of the project area.



Figure 11. 1965 aerial photograph of the project area.



Figure 12. Scale map of the project area.



Figure 13. Coverage of the project area. View to the east (6/17/13).



Figure 14. Coverage of the project area. View to the north (6/17/13).



Figure 15. Coverage of the project area. View to the east (6/18/13).



Figure 16. Coverage of the project area. View to the west (6/18/13).

APPENDIX A
National Archaeological Database Form

NATIONAL ARCHAEOLOGICAL DATABASE – REPORTS; DATA ENTRY FORM

1. R and C #: _____
 2. Authors: Scott, Branden K.

Year of Publication 2013
 3. Title Intensive Phase I Archeological Investigation for Lands North of Manly Associated with the Iowa Northern Railway Company, Lincoln Township, Worth County, Iowa

3. Report Title: BCA Reports
 Volume #: _____ Report #: BCA 1999 NTIS: _____
 Publisher: Bear Creek Archeology, Inc.
 Place: Cresco, Iowa

5. Unpublished
 Sent From: _____
 Sent To: _____
 Contract #: _____

6. Federal Agency: _____

7. State: Iowa
 County: Worth
 Town: _____

8. Work Type: 31
 9. Keyword: 0 - Types of Resources / Features 1 - Generic terms / Research Questions
 2 - Taxonomic Names 3 - Artifact Types / Material Classes
 4 - Geographic Names / Locations 5 - Time Periods
 6 - Project Names / Study Unit 7 - Other Key Words

<u>68.7 ha (169.7 ac)</u>	[7]	_____	[]
<u>Iowan Surface</u>	[4]	_____	[]
<u>No resources</u>	[0]	_____	[]
<u>Upland landforms</u>	[7]	_____	[]
_____	[]	_____	[]
_____	[]	_____	[]
_____	[]	_____	[]

10. UTM Zone: 15 Easting: _____ Northing: _____
 15 Easting: _____ Northing: _____
 15 Easting: _____ Northing: _____
 15 Easting: _____ Northing: _____

11. Township: 98N
 Range: 20W

12. Monographs:

13. Chapter: In: _____ First: _____ Last: _____

14. Journal: _____ Volume: _____ Issue: _____ First: _____ Last: _____

16. Paper: Meeting: _____
Place: _____ Date: _____

18. Site #:

19. Quad Map:

Name	<u>Manly, Iowa</u>	Date	<u>1972</u>
	<u></u>		<u></u>
	<u></u>		<u></u>
	<u></u>		<u></u>
	<u></u>		<u></u>
	<u></u>		<u></u>